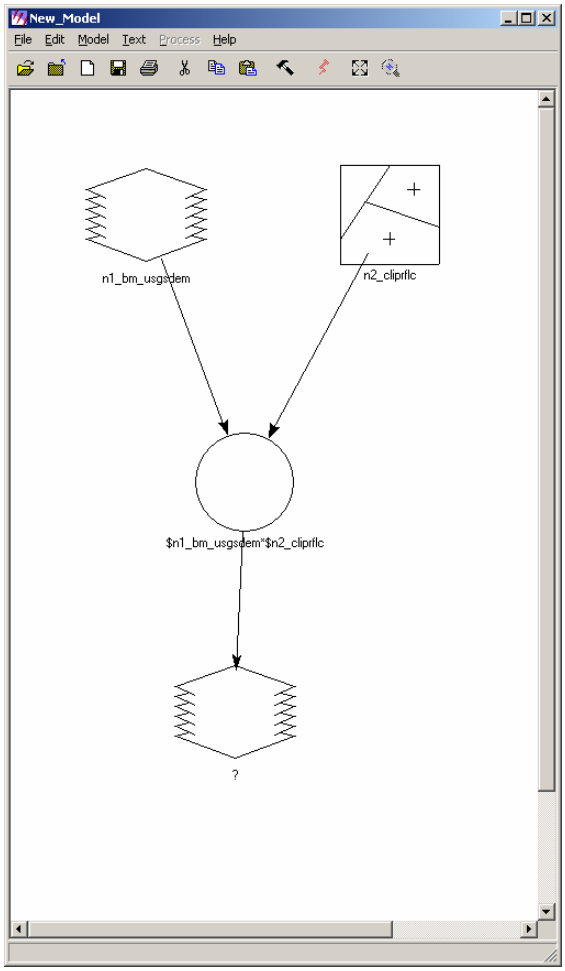
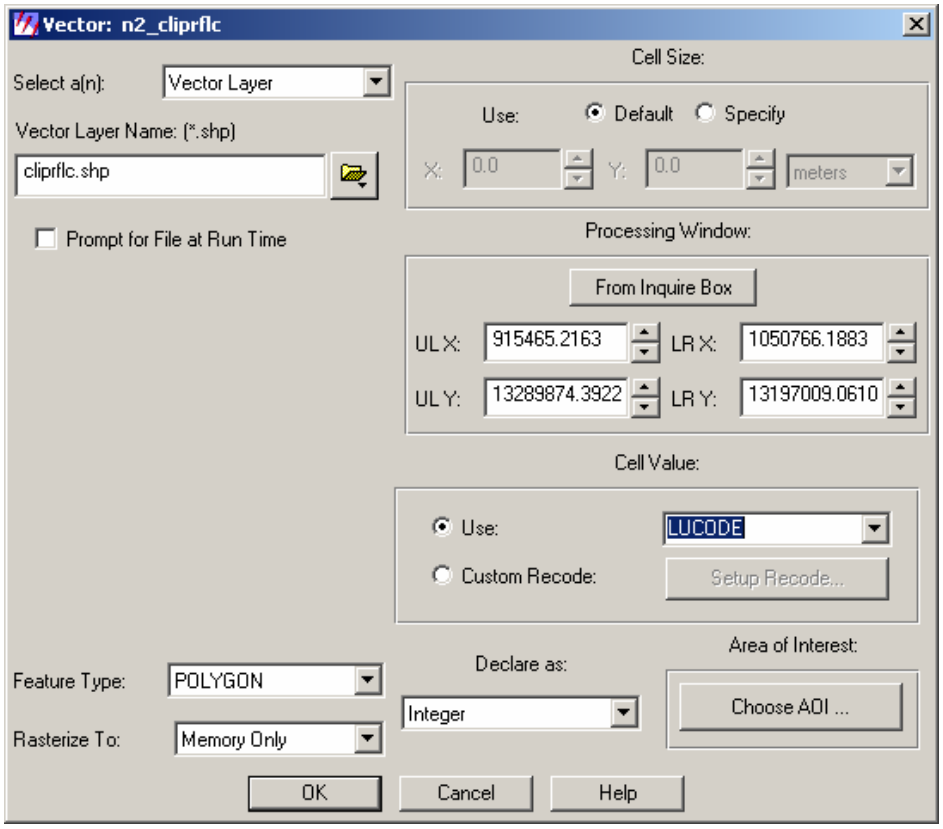
Query Raster and Vector

If you are querying a DEM and Shape file, like a DEM and Land cover. Do your Query on the DEM, and get it like you need it, with your elevation to be 1 and all other 0. So you just have 1s and 0s. Now take a look at the attributes of your Shape file, if it is Land Cover, you may have a number that represents the land class, plus the land cover type, like water. You got to have it as a number, so if a number does not exist you will have to create a new Column for that.

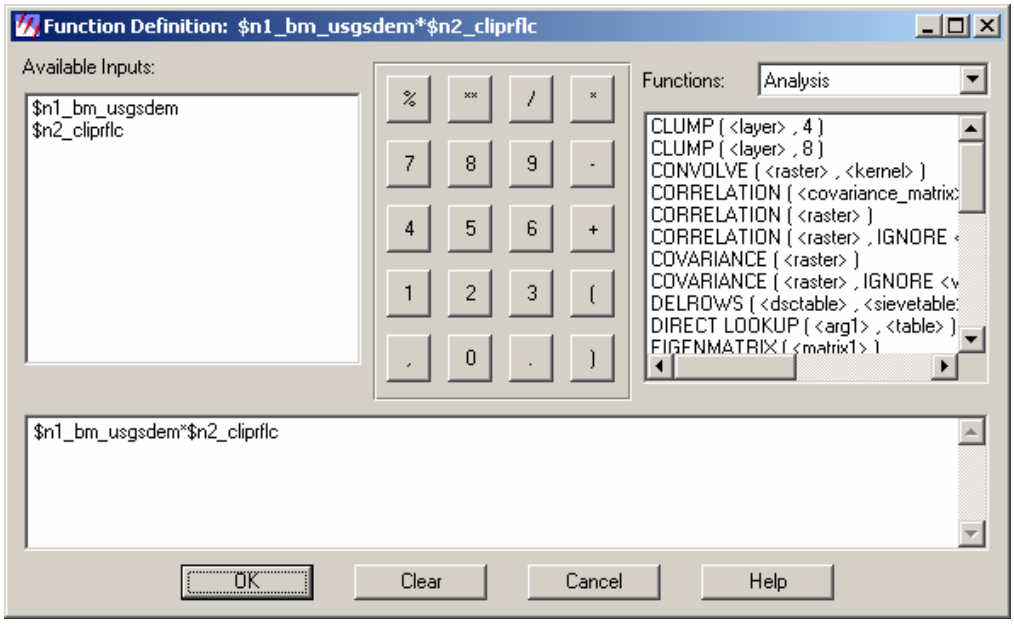
You bring up Modeler, Model Maker. Set it up with a Raster Object and a Vector Object, Function and another Raster Object. Like so.



Make sure you pick your Column for your Shape file. The Cell Value, like LUCODE.

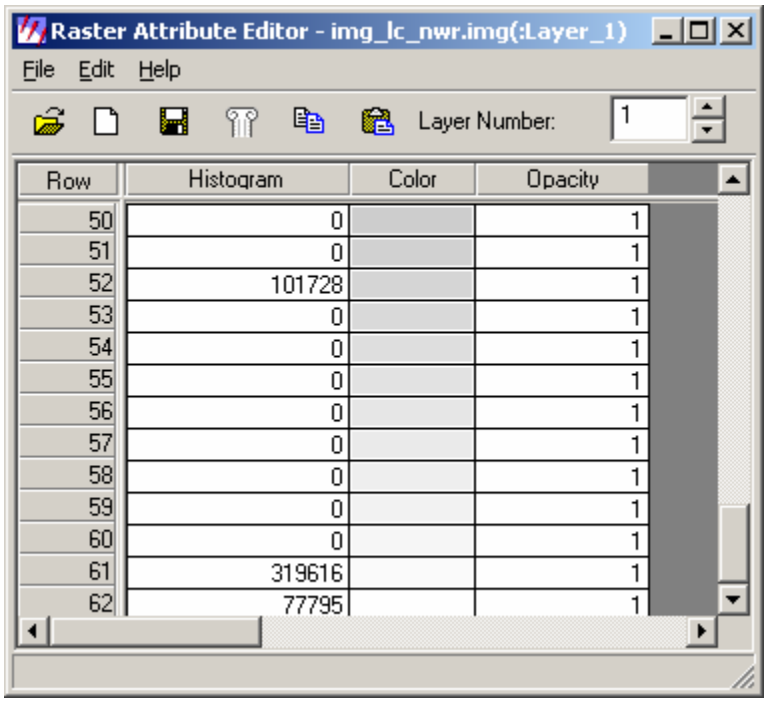


The Function will be the Raster times the Vector. Raster*Vector.



Then you give it your out put for the Raster Object, as unsigned 8 bit.

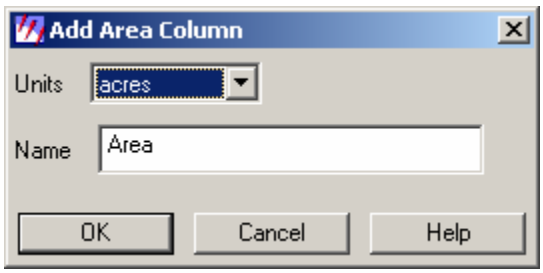
When you load up your new out put Image as Pseudo Color, go Raster Attribute Editor. Take a look at your Row's and Histogram. The Histogram lets you know that there are values for that Land cover in your out put Image, and the Row number is the corresponding number for that Land Cover type that was in the Cell Value in the Shape File Attribute. You need to Compute Statistics on this model, because all of your numbers may not show up, this is important, if not you may have missing data. Go to Image Info, Edit, Compute Statistics, Skip Factor 1. Then look at the Attribute Editor.



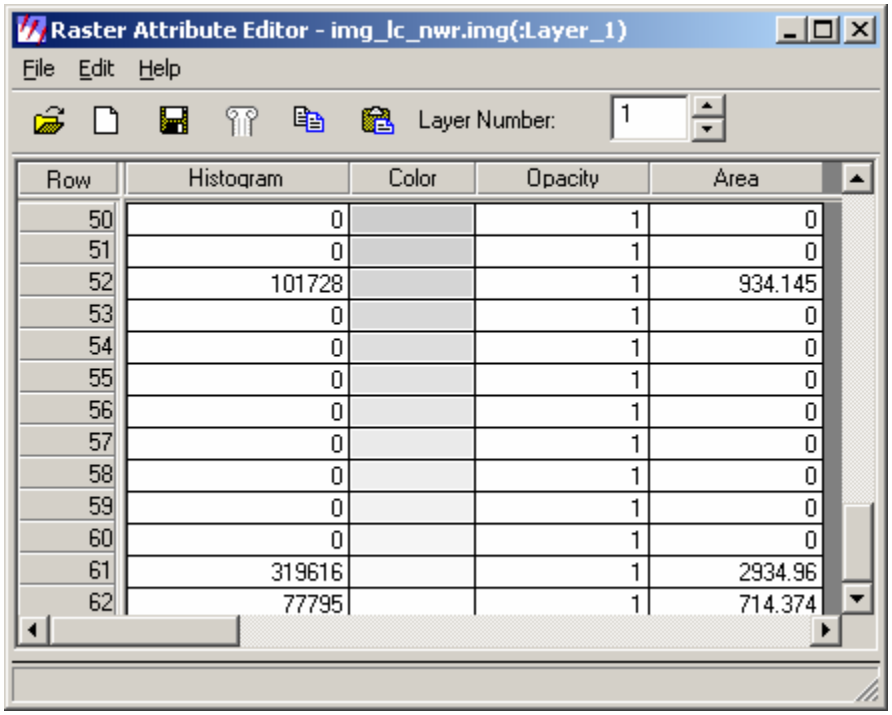
Row	Histogram	Color	Opacity
50	0		1
51	0		1
52	101728		1
53	0		1
54	0		1
55	0		1
56	0		1
57	0		1
58	0		1
59	0		1
60	0		1
61	319616		1
62	77795		1

52 = Lakes
61 = Forested Wetland
62 = Nonforested Wetland
And so on.

At this point you can get a total Area count for the Land Cover, in the Raster Attribute Editor go to Edit, Add Area Column, set it to Acres, and OK.



Now take a look at your Raster Attribute Editor, it added an Area Column that is your total Acres for that Land Cover class.



Row	Histogram	Color	Opacity	Area
50	0		1	0
51	0		1	0
52	101728		1	934.145
53	0		1	0
54	0		1	0
55	0		1	0
56	0		1	0
57	0		1	0
58	0		1	0
59	0		1	0
60	0		1	0
61	319616		1	2934.96
62	77795		1	714.374

At this point you can highlight, copy and paste.